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In the claims:

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1. (Original) A flexible waveguide capable of propagating and emitting light, comprising a flexible material having a surface and an end, wherein a first portion of the light is emitted through at least a portion of said surface of the flexible waveguide, and a second portion of the light is emitted through said end.
2. (Original) The waveguide of claim 1, wherein said flexible material is elastic.
3. (Original) The waveguide of claim 2, wherein said flexible material is characterized by an elasticity of at least 100 %.
4. (Original) The waveguide of claim 2, wherein said flexible material is characterized by tensile set value of less than about 5 %.
5. (Currently Amended) The waveguide of ~~claims 3-5~~ claim 3, wherein said flexible material is transparent.
6. (Canceled)
7. (Currently Amended) The waveguide of ~~any of claims 1-3~~ claim 1, wherein said flexible material comprises a polymeric material.
8. (Original) The waveguide of claim 7, wherein said polymeric material comprises a rubbery material.
- 9-11. (Canceled)
12. (Currently Amended) The waveguide of ~~any of claims 7-11~~ claim 7, wherein said flexible material has a predetermined level of cross-linking.
13. (Original) The waveguide of claim 12, wherein said cross-linking is physical cross-linking.

14. (Original) The waveguide of claim 12, wherein said cross-linking is chemical cross-linking.

15. (Original) The waveguide of claim 12, wherein said cross-linking is a combination of physical cross-linking and chemical cross-linking.

16-18. (Canceled)

19. (Currently Amended) The waveguide of any of claims 1-18 claim 1, wherein said flexible material comprises a dielectric material, and further wherein a reflection coefficient of said dielectric material is selected so as to allow propagation of polarized light through the waveguide, and emission of said polarized light through said surface of the waveguide.

20. (Canceled)

21. (Currently Amended) The waveguide of any of claims 1-20 claim 1, wherein said flexible material is a multilayered material.

22. (Currently Amended) The waveguide of any of claims 1-21 claim 1, wherein said flexible material comprises a first layer having a first refractive index, and a second layer being in contact with said first layer and having a second refractive index being larger than said first refractive index.

23. (Original) The waveguide of claim 22, wherein at least one of: a thickness of said first layer, a thickness of said second layer, said first refractive index and said second refractive index, is selected so that the light propagates at a predetermined propagation angle.

24. (Original) The waveguide of claim 22, wherein said propagation angle is from about 5 degrees to about 30 degrees.

25. (Currently Amended) The waveguide of ~~any of claims 22-24~~ claim 22, wherein said second layer comprises polyisoprene.

26. (Canceled)

27. (Currently Amended) The waveguide of ~~any of claims 22-24~~ claim 22, wherein said flexible material further comprises a third layer for being in contact with said second layer and having a third refractive index being smaller than said second refractive index.

28-29. (Canceled)

30. (Currently Amended) The waveguide of ~~any of claims 22-30~~ claim 22, wherein said at least a portion of said surface comprises a predetermined pattern.

31-35. (Canceled)

36. (Currently Amended) The waveguide of ~~any of claims 33-35~~ claim 33, wherein said at least one additional component comprises at least one impurity, present in said second layer and being capable of emitting said first portion of the light through said at least a portion of said surface.

37. (Currently Amended) The waveguide of ~~any~~ of claim 36, wherein said at least one impurity comprises a plurality of particles capable of scattering said first portion of the light to thereby emit said first portion through said at least a portion of said surface.

38-43. (Canceled)

44. (Original) The waveguide of claim 43, wherein said at least one diffractive optical element is selected from the group consisting of a non-smooth surface of said second layer, a mini-prism and a diffraction grating.

45. (Currently Amended) The waveguide of ~~any of claims 43-44~~ claim 43, wherein a location of said at least one diffractive optical element is selected such that said first portion of said light is emitted from a predetermined region of said surface area.

46. (Original) The waveguide of claim 45, wherein said predetermined region of said surface area comprises a predetermined pattern.

47. (Currently Amended) The waveguide of ~~any of claims 44-46~~ claim 44, wherein said at least one diffractive optical element is designed and constructed to selectively diffract a predetermined range of wavelengths of the light.

48. (Currently Amended) The waveguide of ~~any of claims 33-35~~ claim 33, wherein said at least one additional component comprises at least one region of high refractive index, present in said first layer and/or in said third layer, said high refractive index being selected such that said portion of said light is emitted through said at least a portion of said surface.

49-50. (Canceled)

51. (Original) The waveguide of claim 50, wherein said predetermined region of said surface area comprises a predetermined pattern.

52-61. (Canceled)

62. (Original) A flexible waveguide capable of propagating and emitting light, comprising a flexible material having a surface and an end, the flexible waveguide comprising at least one impurity capable of scattering a first portion of the light so that said first portion of the light is emitted through at least a portion of said surface of the flexible waveguide, while a second portion of the light is emitted through said end.

63. (Original) A flexible optical device, comprising:
(a) an optical coupler; and
(b) a flexible material having a surface and an end, said flexible material being characterized by a numerical aperture;

wherein said optical coupler is capable of focusing light to impinge on said flexible material at an impinging angle satisfying said numerical aperture, and said flexible material is characterized in that a first portion of said light is emitted through at least a portion of said surface, and a second portion of said light is emitted through said end.

64. (Original) A method of providing illumination, the method comprising:
providing a flexible material having a surface and an end;
propagating light through said flexible material;
emitting a first portion of said light through at least a portion of said surface;
and
emitting a second portion of said light through said end.

65. (Original) The method of claim 64, wherein said emission of said first portion of the light is by at least one impurity, present in said flexible material and being capable of emitting said first portion of the light through said at least a portion of said surface.

66-89. (Canceled)